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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,345	10/09/2003	Hirofumi Fujii	243569US3	8320

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EXAMINER	
MACARTHUR, SYLVIA	
ART UNIT	**PAPER NUMBER**
1763	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/681,345	**Applicant(s)** FUJII ET AL.
	Examiner Sylvia R. MacArthur	**Art Unit** 1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 October 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 October 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *10/9/03;7/6/04*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3 and 5-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shingo Kentaro et al (JP 2001-226771) .

Regarding claim 1: Kentaro et al teaches a film deposition system comprising:

a vacuum chamber 1

an evaporation source (target 11) for forming a film on a work in said vacuum chamber, and

a cooling device (cooling pipe 19 and cooling block 30) for cooling the work 9, said provided within said vacuum chamber,

cooling device being

wherein the work has an internal space communicating with the outside through an opening part, and said cooling device is insertable to and drawable from the internal space through the opening part of the work to cool the work from the inside, see abstract of the English Translation of JP 2001-226771

Regarding claim 2: The film deposition system according to claim 1, wherein said cooling device has a coolant vessel (coolant block 30) for passing a coolant in the inner part thereof.

Regarding claim 3: The film deposition system according to claim 2, wherein the internal space of the work is formed in a cylindrical shape having a linear axis, and said coolant vessel is formed in a cylindrical shape insertable to the internal space, see the Figure on the abstract.

Regarding claim 5: The film deposition system according to claim 3, further comprising a work holding device (periphery section of turntable 3, see [003] for attachably and detachably holding the work, said work holding device comprising a rotating table (turntable 3) for rotating the work around a rotating shaft that is the axis of the internal space.

Regarding claim 6: The film deposition system according to claim 5, wherein said work holding device has a moving means for mounting the work separately from said rotating table, and said cooling vessel is provided so as to move following the movement of the work by said moving means (tray 10), see [003].

Regarding claim 7: The film deposition system according to claim 6, wherein said moving means has a revolving table (turntable 3) rotated around a revolving shaft 4, and said rotating table is provided on said revolving table.

Regarding claim 8: The film deposition system according to claim 7, wherein said coolant vessel (cooling pipe 19-coolant block 30) is provided on said revolving table.

Regarding claim 9: The film deposition system according to claim 8, wherein said vacuum chamber has a bottom part (abstract drawing), said revolving table is provided on the bottom part with the revolving shaft as a vertical axis attitude, said rotating table is provided on the upper surface of said revolving table to have circumferentially equal intervals on a concentric circle with the revolving shaft as center, and said coolant vessel is provided on the rotating shaft center part and Fig. 2.

Regarding claim 10: The deposition system according to claim 1, wherein a plurality of works is arranged on the circumference of the concentric circle, and. the cooling device is arranged in the center part of the concentric circle, see Fig.2.

Regarding claim 11: A method for performing a film deposition on a work by use of a film deposition system comprising a vacuum chamber, and an evaporation source for forming the film on the work and a cooling device for cooling the work, which are provided within said vacuum chamber, characterized in that the film is formed on the outside surface of the work while insertably and drawably inserting said cooling device into the work to cool the work from the inside of the work, see abstract of English Translation of JP 2001-226771.

Regarding claim 12: . The method according to claim 11, wherein the work is rotated and revolved in the state where said cooling device is inserted into the work, see abstract of English Translation of JP 2001-226771 and [003-007].

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shingo Kentaro et al (JP 2001-226771).

The teachings of Kentaro et al were discussed above.

Kentaro et al fails to teach that the clearance between the inside surface of the work and the outside surface of said coolant vessel is set to 100 mm or less. However, according to In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984),cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device. The motivation to provide the clearance between the coolant vessel and the work as recited in the claimed invention is to provide an optimal level of temperature control. Thus, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide the optimal clearance between the work and coolant vessel of Kentro et al in order to provide optimal temperature control during processing.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sylvia R. MacArthur whose telephone number is 571-272-1438. The examiner can normally be reached on M-F during the core hours of 9 a.m. and 3 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571-272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sylvia R MacArthur
Patent Examiner
Art Unit 1763

September 15, 2005